Managerial Process for National Health Development

Guiding Principles

WORLD HEALTH ORGANIZATION

GENEVA

1981

"HEALTH FOR ALL" SERIES, No. 5

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Guiding Principles for Use in Support of Strategies for Health for All by the Year 2000

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ISBN 92 4 180005 4

PRINTED IN SWITZERLAND

81 / 5039 - Kundig - 12000

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Executive Summary

The Member States of WHO are engaged in preparing strategies reach the goal of "the attainment by all the citizens of the world the year 2000 of a level of health that will permit them to lead a cially and economically productive life", a goal that is popularly nown as "health for all by the year 2000".

The International Conference on Primary Health Care, held in lma-Ata in 1978, declared that primary health care, as the main cus of a country's health system and an integral part of its social nd economic development, is the key to reaching this goal. Yet, even the broad goal and the key to reaching it have been identified, a anagerial process has to be applied by each country in order to rmulate and implement the strategy for reaching the goal in a anner that is consonant with the country's own health situation and esources, social and economic conditions, and political and admi- istrative mechanisms. In recent years the importance of decen- alizing the managerial process and involving communities in aking decisions concerning their own health care has come to the ore.

Most countries already have some form of managerial process for ational health development. Despite wide variations from country o country, it is possible to identify certain common components. hese are:

(*a*) *The formulation of national health policies*, comprising goals, priorities, and main directions towards priority goals, that are suited to the social needs and economic conditions of the country and form part of national social and economic development policies.

(*b*) *Broad programming*—the translation of these policies, through various stages of planning, into strategies to achieve

clearly stated objectives and, wherever possible, specif targets.

(*c*) *Programme budgeting*—the preferential allocation of healt resources for the implementation of these strategies.

(*d*) The *master plan of action* resulting from broad programmin and programme budgeting and indicating the strategies t be followed and the main lines of action to be taken in th health and other sectors to implement these strategies.

(*e*) *Detailed programming*—the conversion of strategies and plan of action into detailed programmes that specify objectives an targets, and the technology, manpower, infrastructure, financi resources, and time required for their implementation throug a unified health system.

(*f*) *Implementation*—the translation of detailed programme into action so that they come into operation as integral part of the health system; the day-to-day management of pro grammes and the services and institutions for deliverin them, and the continuing follow-up of activities to ensur that they are proceeding as planned and are on schedule

(*g*) *Evaluation* of developmental health strategies and operationa programmes for their implementation, in order progressivel to improve their effectiveness and impact and increase thei efficiency.

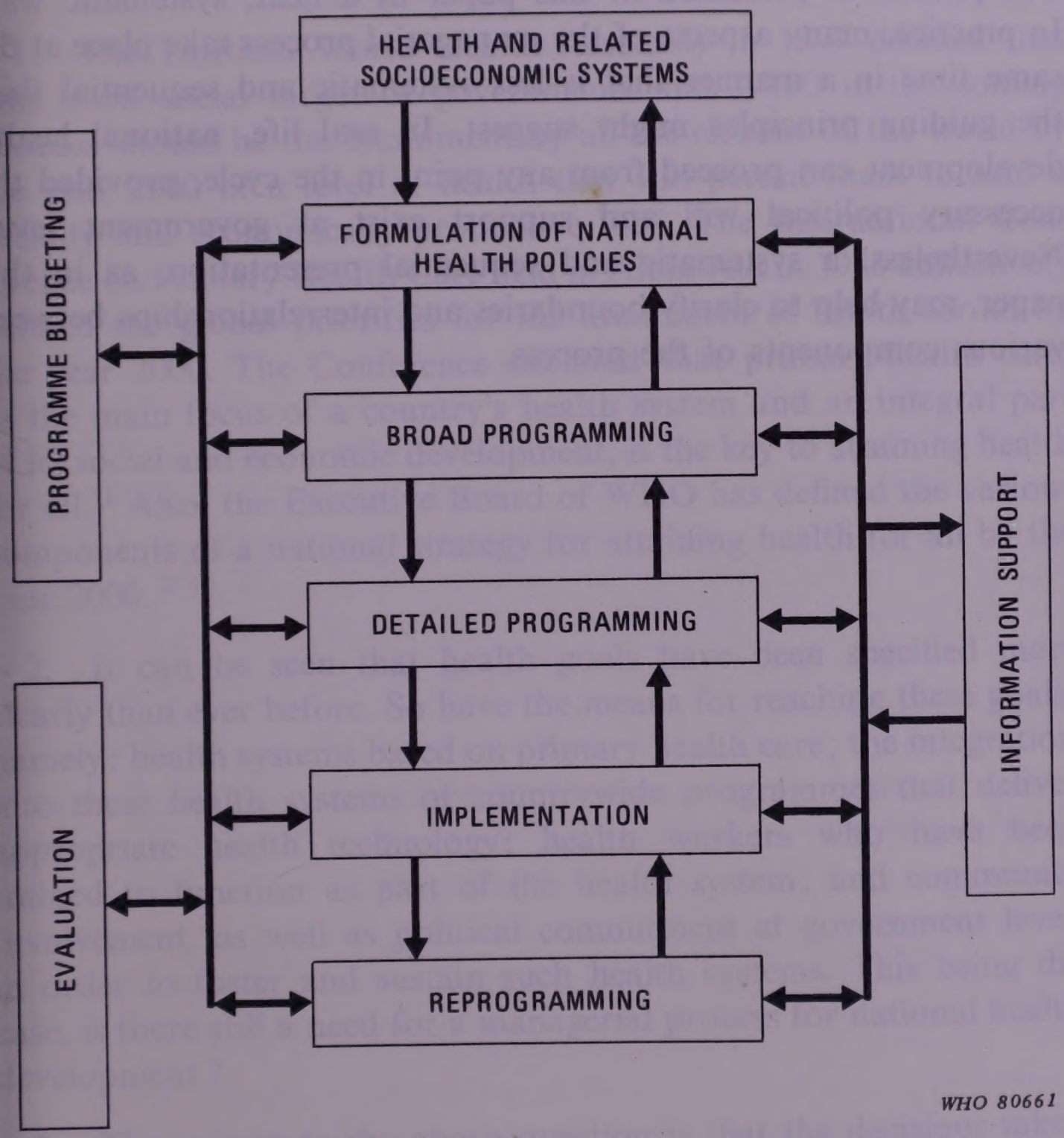
(*h*) *Reprogramming*, as necessary, with a view to improving th master plan of action or some of its components, or preparin new ones as required, as part of a continuous manageria process for national health development.

(*i*) Support, in the form of relevant and sensitive *information*, fo all these components at all stages.

This paper outlines a total managerial process for national healt develoment, describing the above components and their interrelation ships (see Fig. 1), as well as the mechanisms required in order t provide continuity in the process.

FIG. 1

MANAGERIAL PROCESS FOR NATIONAL HEALTH DEVELOPMENT



The paper also offers suggestions as to how national strategies and plans of action for attaining health for all should lead to well-defined countrywide health programmes and organized health systems to deliver them, based on primary health care and an appropriate referral process for providing more complex services and support.

The principles presented in this paper are intended to form t basis for more specific national guidelines to be developed by countr themselves. Each country will, no doubt, have to apply these princip in a flexible manner in keeping with its own particular circumstanc The process is presented in this paper in a neat, systematic wa In practice, many aspects of the managerial process take place at t same time in a manner that is less systematic and sequential th the guiding principles might suggest. In real life, national hea development can proceed from any point in the cycle, provided t necessary political will and support exist at government lev Nevertheless, a systematic and sequential presentation, as in th paper, may help to clarify boundaries and interrelationships betwe various components of the process.

1. Introduction

1. The Thirtieth World Health Assembly in 1977 decided that the main social target of governments and WHO in the coming decades should be the attainment by all the citizens of the world by the year 2000 of a level of health that will permit them to lead a socially and economically productive life". The International Conference on Primary Health Care held in Alma-Ata in 1978 collectively defined the global priorities for the attainment of health for all by the year 2000. The Conference declared that primary health care, as the main focus of a country's health system and an integral part of its social and economic development, is the key to attaining health for all. [1] Also, the Executive Board of WHO has defined the various components of a national strategy for attaining health for all by the year 2000. [2]

The need for a managerial process

2. It can be seen that health goals have been specified more clearly than ever before. So have the means for reaching these goals, namely: health systems based on primary health care; the integration into these health systems of countrywide programmes that deliver appropriate health technology; health workers who have been trained to function as part of the health system; and community involvement, as well as political commitment at government level, in order to foster and sustain such health systems. This being the case, is there still a need for a managerial process for national health development?

3. The answer to the above question is that the decisions taken and the statements made by the Alma-Ata Conference, the Executive

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[1] *Alma-Ata 1978. Primary health care*, Geneva, World Health Organization, 1978 ("Health for All" Series, No. 1).

[2] *Formulating strategies for health for all by the year 2000*, Geneva, World Health Organization, 1979 ("Health for All" Series, No. 2).

Board of WHO, and the World Health Assembly are very gener and need to be made more specific by each country. Thus, ea country has to specify its own priorities within the framework general priorities for attaining health for all by the year 2000. It al has to specify the activities that are appropriate to it with respe to the various components included in the model of a nation strategy proposed by the Executive Board of WHO. An appropria national managerial process is, therefore, required to formula strategies and plans of action for attaining health for all, to conve these into programmes, to strengthen the health system in order deliver the programmes in the best way possible, and to monit and evaluate its own performance and that of each of its compone parts, as part of a continuing cycle.

4. Most countries already have some form of managerial proce for national health development; even if such processes differ wide in nature, certain common components can be identified. These a described in this paper in a systematic and integrated manner It is intended to provide at a later stage more detailed guiding pri ciples for each of the component parts, as well as learning materi to illustrate certain issues.

The managerial process

5. The managerial process presented is much more than methodology: it is a systematic, continuous process of nation planning and programming. It includes policy formulation and th definition of priorities. It involves the preparation of programme to give effect to these priorities, the preferential allocation of budge to them, and the integration of the different programmes withi

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[1] In 1978 the Thirty-first World Health Assembly urged Member States "t introduce or strengthen, as applicable and as appropriate to their social and econom conditions, an integrated process for defining health policies; formulating priori programmes to translate those policies into action; ensuring the preferential appr priation of funds from the health budget to those priority programmes; deliverin those programmes through the general health system; monitoring, controlling an evaluating health programmes and the services and institutions that deliver them and providing adequate information support to the process as a whole and to eac of its component parts" (resolution WHA31.43).

e overall health system. It also deals with the implementation of rategies and plans of action, and the programmes and services nd institutions for delivering them, as well as with their monitoring nd evaluation with a view to modifying existing plans or preparing ew ones as required, as part of a continuous cycle. Finally, it utlines the information support required throughout.

6. A practical health planning process which has demonstrated s usefulness in many countries in recent years is known as country ealth programming. This mainly comprises the activities required o define health strategies and ensure the appropriation of adequate unds for them—"broad programming" and "programme budgeting" —and to formulate detailed programmes accordingly. Country ealth programming thus forms an integral part of the broader anagerial process for national health development presented in his paper.

7. The health planning process, and the formulation of pro- rammes to give effect to plans, have developed a mystique of their wn. There is a need to demystify and simplify the process in the ame way as there is a need to demystify and simplify other health echnologies. This document aims at doing so, as far as possible n non-technical terms, for health policy-makers and managers. But no matter how one attempts to simplify the process, health lanning and programming remain complex matters.

8. The principles presented in this paper are intended to form he basis for more specific guidelines to be developed by countries hemselves. Each country will no doubt have to apply these principles n a flexible manner in keeping with its own particular circumstances. The process is presented in a neat, systematic manner. In practice, uch sequential phasing and subsequent replanning and reprogram- ming in an orderly cycle will rarely be as neat and systematic as the presentation of the guiding principles might suggest. Many aspects of the managerial process take place at the same time; for example, detailed programming of some programmes may be carried out while he master plan of action is still under consideration, or the activation

of some programmes and the development of institutions may pr cede the formulation of certain other programmes. Neverthele presentation of the process in a logical sequence is useful in that clarifies the boundaries and interrelationships between the vario components of the process. In real life national health developme can proceed from any point in the cycle, provided the necessa political will and support exist at government level. Although d cisions are often taken without regard to managerial logic, it neve theless helps if this logic is available.

9. Also, while developmental planning activities are taking plac operational activities in the health system have to be improved. I addition, in view of the multisectoral nature of health develop ment based on primary health care, the managerial process fo health development has to involve various sectors other than th health sector as necessary.

Terminology

10. Since various terms with similar or somewhat different mean ings have been used in various national, regional or global context to denote "planning" and "management" of the national healt development process, it is necessary to clarify the meaning of thes terms.

11. The term "country health programming" has been define by the Executive Board of WHO as:

> a systematic, continuous national planning and programming process. It include policy formulation and the definition of priorities. It involves the preparation c programmes to give effect to these priorities, the preferential allocation of budget to them, and the integration of different programmes within the overall healt system. It also deals with the monitoring and evaluation of strategies and plans c action, as well as programmes and the services and institutions for delivering them with a view to modifying existing plans or preparing new ones as required, as par of a continuous cycle.[1]

12. In some countries and regions the terms "national healt planning" or "national health planning and management" hav

[1] *Formulating strategies for health for all by the year 2000*, Geneva, World Healt Organization, 1979 ("Health for All" Series, No. 2), pp. 21-22.

en used to describe the activities of planning, programming and plementation, together with the evaluation and information pport provided throughout the process. In others, this has been ferred to as the "national health programming process". This paper es the term employed by the World Health Assembly in 1978 in solution WHA31.43, which called for the integration of various anagerial components into a unified process under the title "mana- rial process for national health development".

2. Mechanisms for Ensuring Continuity in the Managerial Process

Ministries of health

13. Continuity is essential to the managerial process for nation health development. In order to ensure it, ministries of health ma need to establish or strengthen mechanisms to provide political an technical support, as well as effective coordination within the healt sector, with other sectors, and with communities. Ministries of healt usually have the main responsibility for defining national healt policies, formulating health programmes, and designing, operatin and controlling health systems. To be as effective as possible, mini tries of health should form an integral part of the policy-makin mechanism concerned with socioeconomic development at the highe government level; at the same time they should maintain clos contact with other ministries and government authorities dealin with socioeconomic development.

National health councils

14. National health development is influenced by various socia political, economic, cultural, demographic, and other factors; thi means that, for the development and control of national healt policies, strategies, and plans of action, it may be useful to establis or strengthen multisectoral national health councils or similar bodies In these councils or similar bodies the whole range of policy issue affecting health and socioeconomic development could be explore jointly by representatives of the health and other relevant sectors t ensure that health systems are developed as an integral part o overall social and economic development. The ministry of health an its infrastructure at different echelons should be prepared to provid technical support to such councils or bodies, both at the nationa level and at provincial or district levels. These councils or bodie would normally be of an advisory nature and would be accountable in some countries to the ministry of health and in others to the highest executive or legislative authorities. The composition of a multisectoral national health council or similar body will vary from

untry to country but may include individuals representing a wide nge of interests in the fields of health, politics, economic affairs d social affairs, both governmental and nongovernmental. Par- cipation of the population and its organized bodies in such councils bodies could also be highly useful.

National centres for health development

15. To provide technical support to ministries of health and ealth councils as well as necessary linkages between the technical nd policy levels, national centres for health development or similar odies are currently being advocated. These centres or bodies are een as networks of existing institutions, departments, schools, or rganizations in the country. They would deal with the development nd application of the country's managerial process for formulating ational policies, strategies, and plans of action for health for all, anagement aspects of the development of primary health care and s supporting levels, and the related health services research. These entres or bodies could also serve in an advisory, training, and in- ormation-exchange capacity, with the aim of building up a sufficient umber of people skilled in the entire managerial process for health evelopment. Likewise, the centres or bodies could interact with imilar institutions outside the usual boundaries of the health admin- tration, thus helping to ensure multisectoral participation in the pplication of the managerial process for health development.

Intersectoral core groups

16. A usual starting-point for the application of the managerial rocess would be a government decision to assign a core group or ommittee, preferably of an intersectoral nature, to the task of ormulating national strategies and plans of action for the attainment f health for all by the year 2000. There are many different ways in vhich this group or committee could operate; its work will be most ffective if it is linked to political decision-making bodies in the overnment, for instance, at the ministry of health level, or to a policy dvisory body such as a multisectoral national health council or imilar body. The committee should, thus, have permanent working elationships with:

(*a*) the *decision-makers*, including high-level officials of the min istry of health and other ministries concerned with the socia and economic sectors;

(*b*) multisectoral *national health councils*, or similar bodies, when they exist;

(*c*) *representatives of communities, professional interest groups, an agencies* interested in health and socioeconomic development and

(*d*) *health workers, teachers, and specialists* with the best availabl information, knowledge, and experience as regards a wid range of health and social disciplines, including the use c managerial, administrative, and legal expertise, and relevan information sources.

Decentralization

17. While the approach described above may be appropriate a the beginning of the process when policies are being developed an the strategies and broad master plans of action are being formulated the work should then preferably continue in a decentralized fashio at provincial and local levels depending on the size and administrativ set-up of the country. For example, detailed programme formulatio might take place at the provincial or local level once the governmen has accepted the master plan of action, a programme manager bein selected for each large programme, and a coordinating authorit established at provincial or local levels. In smaller countries such distribution of responsibilities could be established at the nationa level. Whatever the distribution of responsibilities, the core grou or committee referred to above would have to retain its overal coordinating function.

18. A general process of decentralization of administration i occurring in many countries and must be accommodated within th managerial process. The current trend is to strengthen decision making powers at provincial, district, and community levels. Paralle with this, appropriate community organization is needed for com munities to become full partners in the health development process At the same time, the machinery of government must continue t

vise and fund country-wide programmes and ensure that they are operly formulated and carried out. Sometimes a five-year plan is veloped entirely at the central level, whereas the next one is planned om the more peripheral echelons inwards. Normally, basic policies, iority programmes, and strategies are decided upon centrally, eally following adequate consultation with the periphery. Other vels then have to adapt the national programmes to their local uations by means of detailed formulation. All phases of the anagerial process will ultimately have to be tailored for use at the mmunity level. A complete range of mechanisms for involving the mmunity in health management has yet to be developed in most untries.

3. Formulation of National Health Policies

19. Health policy formulation and analysis have received insu
ficient attention. Many difficulties have been encountered in the pa
in defining countrywide health programmes in terms of their nation
priority, and these difficulties have often arisen as late as durin
programming and implementation. This serves to emphasize the nee
to establish firm links between governmental programme manag
ment levels and the national policy-making levels. Policy formulatic
is an ongoing government activity. Policies, formal as well as u
written, emerge continuously from governmental processes. Th
problem is to ensure that planning, programming, and implement
tion serve the national policies as pronounced by the highest autho
ities in the country.

Definition

20. This notion is of utmost importance in the process of formu
lating and implementing strategies for health for all by the year 200
As stated by the Executive Board of WHO:

> National policies, strategies and plans of action form a continuum, and there a
> no sharp dividing lines between them...
>
> A national health policy is an expression of goals for improving the heal
> situation, the priorities among those goals, and the main directions for attainin
> them. A national strategy, which should be based on the national health polic
> includes the broad lines of action required in all sectors involved to give effect
> that policy. A national plan of action is a broad intersectoral master plan f
> attaining the national health goals through implementation of this strategy.
> indicates what has to be done, who has to do it, during what time frame and wi
> what resources. It is a framework leading to more detailed programming, budgetin
> implementation and evaluation.[1]

Entry point

21. Countries seldom follow strictly the order of first completin
the definition of policies, then continuing with the formulation c

[1] *Formulating strategies for health for all by the year 2000*, Geneva, World Healt
Organization, 1979 ("Health for All" Series, No. 2), p. 14.

ategies and only afterwards devising plans of action, since, as entioned above, these form a continuum. The entry point selected ll depend on the stage of development of the country's health stem and main priorities. Whatever entry point a government ects, current government policies have to be reviewed critically d reformulated as necessary in the light of the concepts and inciples of primary health care defined in the Declaration of Alma-a. Each country will have its own priorities, and the concept of imary health care will have to be interpreted in accordance with ch country's specific circumstances and expectations. The planning, ganization, and operation of primary health care invariably con-itute a long-term process and total coverage of the population may ve to be achieved in stages.

Broad goals and targets

22. The following are examples of issues for which broad goals nd targets should be considered when national health policies are eing reviewed:

— geographical coverage of the population with at least all the essential components of primary health care and the corresponding referral system [1]

— a system of financing health care ensuring that all strata of society have an equal opportunity to avail themselves of such care

— coverage of particular population groups, such as mothers and children, working women, schoolchildren, workers, and the elderly, and any particular risk group

— preferential allocation of health resources to underprivileged population groups

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[1] The essential components of primary health care are: "education concerning revailing health problems and the methods of preventing and controlling them; romotion of food supply and proper nutrition; an adequate supply of safe water nd basic sanitation; maternal and child health care, including family planning; nmunization against the major infectious diseases; prevention and control of locally ndemic diseases; appropriate treatment of common diseases and injuries; and rovision of essential drugs". *Alma-Ata 1978. Primary health care*, Geneva, World Health Organization, 1978 ("Health for All" Series, No. 1), p. 4.

— improvement of the human environment by progressively pro viding safe drinking-water to the whole population, buildin up waste disposal systems, and ensuring clean air

— improvement of housing and basic sanitation

— securing adequate food production and supply and prope nutrition

— development of human and financial resources for health

— community mobilization in planning and development, includ ing promotion of collective responsibility for the health and health care of the community and its constituent families and individuals

— relevant health technologies.

Legislation

23. In some instances the preparation and implementation o national health strategies will require changes in the laws of a country For example, existing licensing regulations may prevent paramedica personnel from carrying out some medical procedures. In other case drug distribution activities may require legislative changes.

Policy issues

24. All policy issues might not have been fully clarified before the initiation of broad programming. However, during broad pro gramming, when countrywide programmes are defined in terms o their priorities, policy-makers have continuously to consult technica staff, thus gradually making health policies more explicit and placing the master plan of action within the context of the country's overal development policies.

4. Broad Programming

General principles of broad programming

25. The formulation of health strategies to give effect to policies r health for all requires decisions on specific priorities, objectives relation to these priorities, and the resources needed to attain these bjectives. To reach these decisions, a careful analysis of the country's ealth problems and socioeconomic circumstances is required with a ew to arriving at solutions that are socially and economically feas- le. These solutions can be summed up as the selection and sub- equent formulation of health programmes that use appropriate chnology and, to deliver these programmes in an integrated manner, ie parallel design or redesign, as necessary, of the health system frastructure, based on primary health care. It is useful, at this age, to recall the following working descriptions of a health pro- ramme and a health system. [1]

Health programme

26. A health programme is a series of interrelated actions aimed t attaining a defined objective such as the improvement of child ealth or the provision of safe drinking-water. Each countrywide pro- ramme should include specific objectives and related targets, quan- fied, if possible, as well as the manpower, technology, physical acilities, equipment and supplies required, means of evaluation, and nancial estimates, a calendar of action, and ways of ensuring ppropriate correlation among all the above.

Health system

27. A health system is composed of various levels, the first level eing the first point of contact between the system and the people, vhere primary health care is delivered. The other—intermediate and entral—levels of the system provide support and specialized ser- ices, becoming more complex as they become more central. The lesign of a health system of which primary health care is the central

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[1] *Formulating strategies for health for all by the year 2000*, Geneva, World Health Organization, 1979 ("Health for All" Series, No. 2), pp. 20-21.

function and main delivery agent involves identifying those co ponents of the health sector and other interacting sectors required deliver health programmes at the various operational levels. T activities to be carried out by each of these components are th defined. The services and institutions required at different levels perform these activities are specified. The necessary interacti between services, institutions, and people at each of these levels also indicated.

Support for primary health care

28. In formulating the strategy, full account has, therefore, to taken of the support of primary health care by the entire health syst and by the other social and economic sectors concerned. These mig include education, agriculture, animal husbandry, food, water sources, environmental protection, housing, industry, public wor and communications. The mobilization of the community and involvement in taking decisions and in implementing health pr grammes are also vital parts of the national strategy. Parallel w activities during broad programming for the establishment of n parts of the health system, activities with respect to existing parts the health system are necessary to make them more relevant to a supportive of primary health care. For, once defined, a countrywi programme has to be delivered by the relevant components of t health system at all levels, with appropriate support from oth sectors.

29. To ensure an adequate two-way support and referral proce a system needs to be developed that links the various institutio involved, starting from individuals and the simplest of health insti tions in small communities and continuing through increasing complex institutions along the health system chain. Mechanisms ha to be considered for ensuring the availability to primary health ca workers and to communities of guidance on health problems, an the process of referring patients to specialized types of health ins tutions, whenever necessary, has to be reinforced. Also required a the development of logistic support to ensure supplies and the pr vision of supportive guidance and supervision. Particular attenti should be paid to institutions providing direct support for prima

lth care. The functions, staffing, planning, design, equipment, anization and management of health centres and district hospitals , therefore, need to be reviewed in the light of their wider function support of primary health care.

0. Manpower considerations are among the most important ments in the planning of a health development strategy. During ad programming, manpower planning needs to be considered in ation to the development and implementation of feasible priority grammes. Projections of manpower requirements covering the gramme period should be made, taking into account both the ected losses of personnel and the expected increases resulting m existing training programmes. Decisions have to be taken with pect to staff recruitment, training, salaries, housing and career velopment, taking full account of the need to prevent a "brain ain". Manpower planning

31. National health research capabilities may need to be strengthed or reoriented towards problems relating to the formulation and plementation of policies, strategies, and plans of action. This orientation might include the promotion of intersectoral research, r which relationships would have to be established with the institions concerned in other sectors. Biomedical research may be quired to elucidate outstanding health problems and to develop w or better ways of dealing with them. Health services research ay be required at various stages of the managerial process to ensure e efficient and effective delivery of health programmes and the velopment and application of appropriate technology. Broad proramming thus includes ensuring that countrywide programmes embody any related research required. Governments may find it necesary to create special mechanisms to coordinate research activities, uch as the national health research councils that exist in some ountries. National health research capabilities

32. In the course of devising strategies, formulating countrywide rogrammes, and designing services for delivering them, it may be seful to review existing technologies for each of the priority pro- Appropriate technology

grammes, to identify those that are appropriate, and to indicate an promote the type of research required to develop alternative tech nologies. It might also be appropriate at this stage to think of enlistin the participation of the various government departments concerne —research and academic institutions, industries, and nongoverr mental organizations—in the health and associated sectors. In selec ing technology it has to be remembered that, while it is sometime possible to substitute expensive capital equipment for labour, mor often such equipment requires more highly skilled operational an maintenance manpower than is readily available. Also, the equipmen or vehicles used in an urban area where there is a trained industria labour force may be inappropriate in rural areas. Technology fo water supply, drainage, and waste disposal must be appropriate no only in terms of costs and human resources, but also in terms o local patterns of behaviour. There have been many examples o sanitation systems which were underutilized either because they dic not fit in with the local culture or because of inability to undertak maintenance and repair. Proper involvement of the community i essential in assessing the appropriateness of technology. Moreover activities should be identified that can be carried out by people in their homes and by the community, as well as by the health services

The process of broad programming

33. Broad programming starts with a situation analysis. This involves assessing the epidemiological situation in the country, iden- tifying its main public health problems, and summarizing information on health services, institutions, and resources. Such an analysis should not, however, be restricted to the present situation; it should also include forecasts for the future.

34. The review and analysis of information on health problems and current service coverage and effectiveness should help to deter- mine the priority health or health-related problems and the population groups deserving priority attention. As far as possible with the existing data, problems should be defined in quantified terms, including trends and projections. It then becomes important to establish objectives and targets at which future health development

rategies will aim. The choice of these strategies involves determining e feasibility of alternative courses of action.

Strategies

35. For example, excessive numbers of children of low birth eight and high neonatal mortality from tetanus in a particular rovince might be identified as constituting a priority concern. Once ie priority objectives or specific targets for reducing the incidence f these conditions have been set, strategies for achieving them can e identified. For the problem of tetanus an effective technology is vailable in the form of tetanus toxoid inoculations for women, so iat the strategy will ensure that this is provided for all women; for xample, by enabling all midwives to give the inoculations, and raining them in sterile delivery practices. The etiology of low birth eight is, by comparison, much less clear-cut, but certainly includes uch underlying factors as maternal malnutrition, too heavy a orkload, and cigarette smoking. So the selected strategy will involve everal different interventions pursued at the same time. These might nclude employment programmes to raise cash incomes and thereby acilitate the improvement of maternal nutrition, the provision of ood supplements for pregnant women, social support to lessen the oman's workload in and away from the home, and prenatal exa- inations to identify high-risk mothers in need of special care. It is nportant in considering possible strategies to encourage innovations nd include possible actions in sectors other than health. These pproaches or strategies need to be screened for feasibility. The onstraints might include cultural and behavioural considerations, olitical and professional opposition, difficulty in obtaining or placing orkers of particular levels of skill, complexity of administration nd logistics, or the community's lack of financial or productive esources. Elucidation of these constraints may be of help in deter- ining the means of overcoming them or in selecting the strategies ost likely to succeed.

36. An example of one such constraint is the difficulty of changing ietary habits. Various types of health education approaches are sually suggested, including lectures and demonstrations by basic

health service staff. In most developing countries, however, good nutrition is prevented not only by the lack of education but also by poverty. Very often nutritious food is available but is sold rather than eaten. When people are advised to produce food from their own gardens, they decide that it is not worth the time, effort, and loss of income. The government may therefore wish to consider alternative strategies, such as subsidizing combined community agriculture and food production projects.

Specific activities

37. When the broad lines of action have been selected, the specific activities needed and their coverage, targets, and timing will have to be considered so that the resources required can be estimated.

38. Critical activities in each component of the strategy should be described, in particular the interventions recommended for dealing with the priority health or health-related problems. These interventions may be preventive, diagnostic, curative, or rehabilitative and may comprise educational, informational, and social procedures. For example, a government may decide to introduce a child allowance so as to help families to provide their children with proper food and clothing, as a means of preventing illness and reducing infant and child mortality and malnutrition. The interventions should relate to the most common aspect of the problem rather than to unusual variations of it. It is essential to specify the population coverage and rough requirements in manpower, facilities, equipment, and supplies for each programme; for example, how many community health workers, midwives, nurses or doctors will be required, and how many health centres or hospitals, with what resources, need to be constructed. Estimates of one-time and annual operating costs can then be made using approximate average costs such as salary per community health worker or nurse, dollars per square metre of building, training cost per midwife, drug cost per outpatient visit, and food supplement cost per child.

Resource constraints

39. Broad programming is also concerned with estimating the consequences of the programme in terms of population coverage

ssible reduction in the incidence of disease and/or disability in the pulation, and cost. As there are manpower and financial constraints each phase of the plan, alternative lines of action and mixes of terventions and time patterns of implementation may need to be nsidered to make reasonably certain of achieving the maximum fect. For example, it may be necessary to set up a mobile health am for undertaking disease control activities until fixed facilities e constructed and staff and logistic systems are built up in the mmunities and areas to be served.

40. Resource constraints may imply that a particular set of terventions could reach only a limited portion of the population. [1] urther analysis, involving the consideration of alternative types f intervention or changes in the allocation of resources among ctivities, may make it possible for more of the population to be overed, but perhaps with less effect on each person, group, or egion reached. For example, a particular activity might be so xpensive that its potentially powerful health effects would be limited , say, 20% of communities. If the same resources were allocated another activity, 90% might be covered. Or, perhaps with the same esources, 10 village health workers per community could be trained a particular level of skill or 50 workers to a much lower level. he more highly trained workers might have greater health impact er contact, but fewer people might have access to them than would ave access to a greater number of lesser-trained health workers.

41. While it is important to recognize that national budgetary esources are always limited, documented proposals have to be resented for the proportion to be allocated to health objectives. art of the problem is to demonstrate to those in the ministry of nance and development planning body both that the proposals are fficient and that additional resources can be utilized effectively o make significant additional or earlier progress in extending primary ealth care coverage or raising the health status of the population.

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[1] For more detailed information, see Part 5 (Programme Budgeting).

Programme planning and development

42. Once the more cost-effective and feasible strategies ar identified, it becomes necessary to determine how best to organiz their setting-in-motion and subsequent operation. Some existin health programmes and services may already be carrying out im portant interventions, although on a smaller scale than required Many existing programmes will probably retain their current res ponsibilities, while modifying their staff functions, activities, an scale of operations according to the proposed strategies. Othe programmes may undergo organizational revision in order t increase coverage and efficiency. Integration of various kinds o services and programmes at the peripheral level, where primary healtl care is delivered, is a common requirement for programme modifi cation. For example, communicable disease control has often bee carried out in a series of distinct campaigns, and careful though has to be given as to how best to integrate them within primary healtl care, progressively if necessary. Primary health care and the com munities it serves have to be adequately organized to assume th enlarged responsibilities involved. On the other hand, if too man tasks and responsibilities are assigned to primary health care worker all at once, some planned activities may be incompletely carried out

43. Other aspects of the identification, revision, or formulatio of priority programmes are political, organizational, or personal i nature. Organizational and professional prestige is involved. Re organization and reorientation of programmes can affect the statu of organizations and individuals. They therefore have to be planne carefully in order to mobilize professional and organizationa capacities in support of the strategies concerned, while minimizin disruption of ongoing programmes and mitigating the unsettlin effects of change on programme staff. A tall order, but important

5. Programme Budgeting

44. For any strategy to be viable, it is essential to make resources vailable for priority activities where and when they are needed. ne process for doing so is called programme budgeting, i.e., making re that budgets are available to attain programme objectives. Vithout this, plans are merely dreams on paper. Budgeting is a means ensuring that programme decisions become budget decisions.

45. Programme budgeting has to begin during policy formulation nd particularly during broad programming, once priorities are nown. These priorities will have to compete for resources not only mong themselves, but also with the existing programmes and insti-tions in the health system, as well as with other sectors. This being ne case, to start off it is useful to ensure at least that additional re-ources are allocated to defined priorities, since it is rarely possible to educe resources available for ongoing activities in the health services. n this way, for example, all additional resources can be allocated to rimary health care rather than to "vertical programmes" and urban ospitals, until primary health care catches up with the rest of the ealth system. During this early phase it is sufficient to make broad llocations expressed as orders of magnitude. These are placed n the formal annual development and operating budget and are urther refined during detailed programme formulation.

46. Programme budgeting makes for better decision-making and mplementation by defining objectives clearly and by grouping ogether the resources required to attain each of these objectives. rior to making decisions, the analysis of available information on ne present use of resources in relation to stated objectives, on ways n which objectives are being met, and on population groups which re being served is required.

Allocation of resources

47. Broad programming will have tackled a variety of question such as: How should resources for primary health care be allocate between its various components? How much emphasis should b given to nutrition as compared with sanitation? How should materna and child health activities be distributed among rural and urba localities? What emphasis should be given to, say, training, a compared with service delivery? A programme budget can effectivel display the results of the choices made among these kinds of alter natives. It is a means of noting, in an organized fashion, what i to be done, with emphasis on the resources required to get it done

48. Programme budgets have to be arrived at through th budgetary process practised in the country concerned. Whateve the process, it will have to include determining sources of funds e.g., governmental development budget, recurrent budget, healt insurance funds, and user charges. It will also have to include speci fying the units in the ministry of health, other ministries, provincia governments, institutions, and communities that will receive fund to spend on programme planning and implementation.

49. For example, consider the functions and responsibilitie involved in running a national immunization programme. The task relevant to such a programme may be grouped into four subsystems each requiring individuals with different skills. The subsystems diffe in the degree to which they support health interventions, and th individuals will differ in the proportion of their time devoted to th immunization programme, depending on the subsystems in whic they work and whether they are employed at peripheral, middle, o national level. A programme budget in a ministry of health for suc a programme might appear as follows:

Subsystem	Tasks	Budget ($000s)
Laboratory	Provide quality control to assure vaccines conform to WHO requirements. Produce vaccine where appropriate. Test samples from the field for potency, etc.	
Logistics	Procure, store, and distribute vaccines and related material so that users are not forced to interrupt the provision of service because of shortages.	
Service delivery	Provide immunization for a high proportion of all infants and pregnant women in a defined geographical area, making sure that high coverage is in fact achieved.	
Management	Plan and coordinate the national effort and secure the necessary resources; ensure that staff operating within all subsystems are given training and supervision. Evaluate results, including immunization coverage. Promote research and development to improve impact of programming.	
	Total	

50. Consider another example based on intersectoral interventions. Suppose that the achievement of nutritional goals could be aided by feeding children in schools. The tasks involved are shared by various agencies. The ministry of agriculture may have to secure some of the food; the ministry of health may have to specify the nutritional requirements and the diets; the ministry of education may have to make administrative arrangements and arrange for the transportation and distribution of supplies; the local community may have to provide additional food and labour for its preparation; and voluntary agencies may also have to supply some food items.

51. Thus, a subset of the major food and nutrition programme is identified, the various participant organizations specified, and their financial requirements calculated. The national "programme budget" for each year might look something like the following:

Item	1980 (figures in $000s)			
	Training	Procurement	Direct services	Total
Food and nutrition School feeding: ministry of agriculture ministry of health ministry of education community participation voluntary agencies				
Total:				

52. To ensure that the necessary funds for the school feeding programme are available in the budget year, a school feeding allocation would have to be inserted into the appropriate categories in the regular budgets of each of the agencies. If this is done, there is a greater likelihood that managers responsible for the school feeding programme will be able to fund each of the activities required. The specific unit within each of the ministries and the communities concerned would have to be designated in order to identify management responsibilities.

Budgetary control

53. Budgetary control needs to be exercised to ensure that spending authority for delivering the programme is clearly allocated in the budget process. Such control also ensures that the programme objectives, activities, and target populations are not lost sight of when funds are allocated to the various spending units concerned. A problem that often arises is that governmental budget categories do not reflect programmes and target groups, but are stated in terms of objects of expenditure, such as pay for personnel. Budgetary control to ensure the preferential allocation of resources to programme priorities may require the introduction of additional categories of expenditure, relating funds to programmes, activities, and population groups.

54. The introduction of specific programme details into the budget lls for the application of cost analysis, so that reasonable estimates the financial requirements can be made, phased over time, and pressed in budget categories that are specific to the objectives ncerned. A good accounting system is of help, but frequently the tivities involved in health development are so different from normal counting categories, or programmes given priority are so different type from earlier ones, that specially devised methods of cost timation may have to be used. These methods would translate rojected programme activities, such as those for feeding school-ildren, into specified requirements for people, transport, and pplies. The costs of fulfilling these requirements would then have be calculated to complete the calculation of programme budget timates.

Cost analysis

55. Discussions and negotiations with regard to allocations of esources and responsibility for the use of these resources can be ided by the use of a programme-budgeting format as a basis for aking and recording decisions. Such a format can facilitate coordi-ation among different managers and the monitoring of the pro-ramme as a whole by designated responsible officials. Such monitor-ng should also provide information for evaluation.

Format

56. Programme budgeting, then, is a process for establishing nancial plans to attain objectives. It can be summed up as program-ning by objectives and budgeting by programmes. It operates at the arious levels of government at which major programme allocations ay be determined. It also indicates the emphasis that the govern-ent wishes to place on activities for health development in each ector. At other management levels, the programme-budgeting pro-ess links the activities of agencies involved in health programmes o the programme objectives and the sources of funds. The informa-ion gathered from the programme monitoring process can be used n revising requirements when these have to be specified in subsequent nnual budgets.

Programming by objectives, budgeting by programmes

6. The Master Plan of Action

Preparation of the plan

57. When broad programming has been completed, including the related programme budgeting outlined above, the master plan of action is prepared in a document summarizing the product of the programming process. It should be presented to the government for acceptance or modification and will then provide long-term guidance and direction for the development of the country's health system. The national plan of action should specify at least the following:

— the national health policies to be followed, the objectives to be attained, and related targets, quantified as far as possible
— the political, social, economic, and administrative processes and the technology required, together with any necessary legislation and managerial mechanisms and processes
— priority health problems, the strategies chosen to solve them and countrywide programmes that have to be formulated in response to them, together with a timetable for their implementation
— the main agreed actions to be taken by all sectors concerned including the development of the health services required to deliver programmes
— manpower requirements
— the broad allocation of financial resources for programme implementation, taking into consideration resources actually and potentially available and the progressive increase in resources which will be necessary as the plan evolves
— the organizational responsibilities for programme implementation.

Implementation of the plan

58. The implementation of such a plan of action is obviously a long-term process for which it is difficult to specify a definitive

ecise timetable in advance. However, it is useful to prepare rough netables and refine them progressively, since implementation will pend on a variety of political, social, human, managerial, tech- cal, and economic circumstances, including the extent to which the quired resources can be made available. It is often wise to adopt ort-term measures, if the initiation of long-term action would lead too long a delay, provided that the short-term measures are nsistent with the general tenor of the long-term action, and in no ay constrain the future implementation of the national plan of ction.

59. Master plans of action, approved by governments, should ot be interpreted as "sacred" documents that will provide "right" nswers for all kinds of situations in the coming decades. The master lan of action should preferably be interpreted in a flexible manner, roviding a common platform for action by all levels of the health ystem, including the support of other sectors. As the master plan of ction is progressively implemented, constant interraction will be equired between, on the one hand, technical levels involved in the etailed planning, starting-up, and running of programmes, and, on he other hand, government offices and policy levels. This is neces- ary in order to bring about the necessary modification, further pecification, or redesign of the master plan of action.

7. Detailed Programming

General principles of detailed programming

60. When the government has approved the master plan o action, the time is ripe to embark on the detailed formulation of th countrywide programmes that have been approved, and on the desig of improved health systems to deliver these programmes. Whil efficient management is futile where programmes are basically un sound, in many countries poor management of existing services is serious problem, so that even what has been planned on paper doe not take place in practice. Proper formulation of programmes, fol lowed by vigorous programme activation, will make it easier late on to operate programmes and the services and institutions fo delivering them in an efficient manner.

Levels of authority

61. Detailed programming is a costly affair in itself, and grea care has to be taken to organize it properly. It is necessary first of al to decide on the delegation of responsibility and authority for pro gramming to intermediate and local community levels. Decisions o this nature will be affected by such factors as the size, administrative organization, and geography of the country. It is also necessary t define, on the basis of agreed criteria, the size and types of com munities that are to receive primary health care, as well as thei grouping for purposes of support and referral. Here, attention shoul be paid to population coverage and the accessibility of health care

The manager

62. At the appropriate level, a programme manager then has t be assigned and sometimes an additional manager for each larg component of the programme, such as the creation of an institution Ideally the choice of manager should fall on the person who wil ultimately operate the programme or direct the institution. Manager rarely come ready-made and may have to be trained for the job.

63. The manager of the programme will have to become acquaint ed with the programme's objectives and targets. Acquaintance wil

so be required with the kind of technology considered appropriate; e types of health and other workers foreseen; the physical facilities onsidered necessary; categories of equipment and supplies, including ehicles; methods of monitoring and evaluation; time allotted for etting the programme under way; relationships determined between ne programme and other programmes; and the way integration of nese programmes within the health system has been envisaged.

Resource management

64. Detailed programming entails thinking about a great many actors relating to resources and their management; people as subjects nd objects of health development; health personnel; facilities and neir construction, equipment, and maintenance; supplies, and logis- cs to ensure their timely availability; and communication and trans- ort. In many cases it is only when issues such as these have been xamined and planned in detail that their true nature and magnitude merge and more specific decisions can be taken with respect to them.

The process of detailed programming

65. It is, therefore, now necessary to specify the above items in uch detail that, when the green light is given, the programme can e implemented. For instance, as far as technology is concerned, it s necessary to decide what can be done by individuals and families, vhat by the community as a whole, what tasks will have to be erformed by health workers engaged in primary health care or by hose in the supporting health system, and what activities will have o be carried out by other sectors.

Manpower planning

66. Precise manpower estimates have to be arrived at, tasks defined, and orientation and training planned. Ways of selecting personnel have to be agreed upon. Salary structures and work ncentives have to be considered. Assumptions with regard to attri- ion, retirement, illness, and/or career changes, have to be specified. During this period, post specifications have to be made so that personnel can subsequently be assigned to particular posts and lo- cations; these include staff required for training, maintenance, and support, as well as staff for providing services to population groups. Relevant training programmes have to be conceived.

Physical facilities

67. Where physical facilities are required, decisions have to b taken as to whether to buy, rent, or build them. If they have to b built, their location has to be decided upon, and architects' briefs hav to be prepared. Decisions on the construction of facilities requir most careful consideration in view of the cost and complexity of th task. Many health administrations are moving towards the use o standard designs which have proved advantageous in terms of cos reduction, ease of maintenance and expansion, and suitability withi local environmental conditions. Because of inflation, it is particularly important to reduce the requirements for imported materials and equipment and to accomplish planned activities on schedule. Com munities themselves may make a valuable contribution by providing materials, labour, and land.

Logistics and supplies

68. The type, quantity, and location of supplies required need to be determined, decisions taken regarding their purchase, and a logistic system planned to ensure their availability wherever and whenever they are needed.

69. Supplies include not only equipment and materials for building maintenance and repair but also those consumed in providing services, such as pharmaceuticals and surgical supplies in curative medical care; vaccines, chemical prophylactics, insecticides, and molluscicides in preventive programmes; and food supplements in nutrition programmes. The expected rates of consumption of each type of commodity and the quantity of initial stocks need to be projected and their costs estimated.

70. Manufacturing, importing where essential, transportation, and maintenance of the cold chain for certain items are also critical in ensuring supplies in sufficient quantities and of suitable quality to achieve programme objectives. Centralized procurement, on the one hand, and local procurement, on the other, have to be compared with respect to cost, time, availability, and possible effect on the local and national economy.

Transport

71. If the programme calls for a transport system it should be planned and designed *before* operations commence. Attention

ould be given to expected patterns of use, location and equipment, d anticipated replacement.

72. The interrelationships between all the above aspects of the ogramme have to be specified and a detailed calendar of action orked out. All of this may require health services research, which mong other things may help to identify whether the proposed rate programme implementation is feasible.

Calendar of action

73. At the same time, those responsible for the health system as whole in the geographical area concerned have to define or refine ie relationships between the primary health care programmes volved and the next level of the health system, such as the health entre or district hospital. They have to decide how best to integrate rogrammes into the general health system in the area. They have o ensure proper links in the supply chain, i.e., the logistics of supply. gain, health services research may be required for these purposes. n this context it is of the utmost importance to remember the ontinuing need to review and redesign or improve, as necessary, the ealth care system that is in operation, taking into account the nodifications required for it to be based on primary health care.

Relationships within the health system

74. Programme budgeting continues throughout the above phase. Detailed cost estimates have to be made and budgets prepared ccordingly. It is useful to have standard costs to start off with, progressively refining cost estimates in the light of the specific circumstances. Budget estimates for both capital investments and current expenditure have to be submitted to the appropriate authorities. In submitting these estimates at local, intermediate, or national levels, the timing of expenditures by budget year needs to be specified. The presentation of objects of expenditure will vary according to the budget classification scheme employed. Usually, manpower requirements by type and cost need to be estimated for all programmes, primary health care facilities, or institutions. Needs in supplies, drugs, equipment, and transportation will likewise have to be identified. In addition, detailed budgets for construction projects have to be estimated by location and administrative unit.

Budget

75. The utilization of internal funds, or external support, fo capital investment is often proposed as a top priority. For exampl funding may be available for the construction of a large number o health centres. Care must be taken not to exceed the national capacit of staff to operate these centres. Capital investment is a one-tim endeavour, but the salaries of the staff and the funds for maintenanc supplies, and drugs continue every year and often increase wit inflation. Also, equipment has to be renewed from time to time People have to be trained and assembled in time to operate ne institutions as soon as they are ready. Operating costs must, therefore always be considered when the scale of capital investment is bein set.

Programme document

76. Detailed programme formulation generates the workin document for individual programmes, providing essential indication for setting these programmes in action and later operating them This document should include, for each programme: details o objectives; targets; populations and localities; legislative an administrative requirements; activities; timetable for implementation budgets; requirements for personnel, including their recruitment training and management; supplies, equipment, and logistics construction; transport; evaluation and information support; an practical intersectoral implications.

Primary health care in communities

77. Ways of planning and organizing primary health care i communities are of particular importance.[1] These will vary with the type and size of community and with its pattern of social organiz- ation. Thus, solutions applicable to small villages may be vastly different from those appropriate for large urban communities. Nevertheless, certain features have to be taken into account that are common to all forms of community.

78. It is necessary to decide on the most suitable mechanisms for planning, operating, and controlling the community primary

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[1] Paragraphs 77 to 84 have been taken from: *Alma-Ata 1978. Primary health care*, Geneva, World Health Organization, 1978 ("Health for All" Series, No. 1), pp. 56-58.

ealth care programme. Local political, administrative, and social atterns will help to determine these mechanisms. In all cases, it is ecessary to reach agreement on responsibilities—for example, to ecide who carries ultimate responsibility for the programme and vhether the same individual, or committee as the case may be, is lso responsible for its detailed planning and management. If a ommittee is elected, how should it be composed—of political or ther community leaders, health workers, or representatives of the ublic, and in what proportions ? Will such a committee be given bsolute powers, or will it be empowered only to make proposals, nd if so to whom or to which body representing the community s a whole ? How will coordination with other sectors best be ensured —by including their representatives in the mechanism for planning nd organizing primary health care, or by creating another com- munity group consisting of representatives of all the sectors involved n development ?

Priorities

79. In determining priorities, what are the best ways of ensuring hat the voice of the whole community is heard? And once priorities ave been determined, are they to be given effect all at once or in stages? The answer to this last question will, of course, depend on the resources available; decisions have to be taken concerning the generation of local resources in cash and kind, and assessments made of the resources potentially available from the other levels of the health system and from central government. It is also necessary to decide who will deal with the other levels of the health system—for example, health workers at the technical level, or community leaders at the political level, or both.

Methods

80. Once priorities are decided on, decisions have to be taken concerning the methods and techniques to be employed. These have to be acceptable both to those who use them and to those on whom they are used. Also, an appropriate mechanism is required for taking these decisions, preferably including participants from the general public and from the health sector. Further decisions have to be taken on the composition and degree of skill of the health team providing

primary health care. Should this be composed of health workers each providing the same range of service, or by a mixture of health workers each providing different kinds of service? Are there to be part-time or full-time health workers or a combination of both? What should be the conditions for their selection and by whom will they be selected? Should they be remunerated and, if so, how and on what scale? Will they have prospects for advancing in their career and how will this be organized and controlled? Should volunteers be mobilized?

Training

81. What kind of basic training should the members of the health team receive, and for how long? How will their continuing training be organized, who will organize it, and who will provide it? Who will be appointed team leader? How will individuals and families be incorporated in the health team so that they become full partners in their own health development? How will they be educated in health matters, and by whom?

Equipment and facilities

82. When decisions have been taken on the methods to be employed for each of the components of primary health care, and on the types of health workers to apply these methods, it will be possible to decide on the equipment and supplies required, the essential drugs and vaccines, the system of maintaining equipment, and the frequency of replenishing supplies. A balance will have to be reached between local considerations and national standards, taking into account local initiative and development on the one hand, and the possibilities of organizing a national system of maintenance and supply on the other. Decisions also have to be taken on the physical facilities required, their location and size, and their design or adaptation from an existing structure.

Responsibilities

83. To control the implementation of the community programme, it is necessary to decide on the methods and mechanisms for social, managerial, and technical guidance and supervision. Who will have overall responsibility within the primary health care facility? To whom will the person responsible report on progress and how often?

o whom will this person turn with managerial, technical, or social roblems? To whom will the members of the community turn when ıey have similar problems?

84. These are only some illustrations of the types of question that ave to be answered in planning and operating a community primary ealth care programme. Whatever the solution, there is a need for lear-cut procedures that are known to the community as a whole nd to the health workers and that are followed by all concerned.

8. Implementation

85. Three interrelated aspects of implementation are considered below:

(i) starting up;

(ii) the operation of programmes and services and institutions fo delivering them; and

(iii) monitoring.

Starting up

86. The end result of detailed programming is a set of working documents. On the basis of these documents, programmes have to be brought to life, with people applying technology and others having it applied to them or controlling them. Some people have to be informed, others trained; some have to inform and train. Buildings have to be constructed and equipment purchased, installed, and run in. Vehicles have to be ordered, and supplies bought and transported to where they are needed. All this has to be organized and information made available to those who need to know it in order to permit the right action to be taken. All the above, and much more besides, is known as the starting-up of implementation, since the ideas on paper have to be concerted into action. The subject is vast, as is the literature on it; in many instances administrative procedures have to be followed that are highly specific to the country concerned. Only some of the main issues, therefore, will be touched upon in this paper. Some of these issues may have to be dealt with at only one organizational level, others at all levels. Some issues may be comparatively simple at community level, but may become much more complex the more central the level, e.g., the construction of facilities and the design and operation of logistic systems for supplies.

Degree of detail

87. The starting-up of programme implementation entails thinking about a great many details concerning issues decided upon during detailed programming, e.g., those mentioned in paragraph 64 above.

n many cases it is only when issues such as these have to be faced n practice that their true nature emerges and realistic decisions can e taken with respect to them. For this reason, it is wise to start up rogramme implementation as soon as authority and funds to do so an be obtained. Those who are responsible for giving this authority nd allocating the funds will be wise not to expect programmes to e formulated in such detail and with such precision that they can e implemented without further thought or deviation from the letailed plan. To expect this is to condemn the programming phase o become so lengthy that the resulting plan of action is likely to be outdated before it is put into effect.

Managerial flexibility

88. During this starting-up phase of programme implementation, unforeseen circumstances and problems may arise that necessitate revision of the plan of action. For example, despite the fact that budgets have been approved for programme development and operation, it may prove impossible to allocate resources to the full extent required. In such cases the implementation schedule needs to be revised. Thus, the starting-up phase requires *a flexible managerial approach* as well as an action-oriented style of management to ensure the full implementation of the activities that have been planned.

Resource management

89. The purpose of resource management is to ensure that the resources needed for all programme activities are secured in the right places at the right time so that programmes can be implemented expeditiously and successfully. This process starts during the early phase of programme implementation and continues as long as the programme lasts. The initial phase includes both the acquisition of the needed resources and the setting up of a management system to ensure their proper use, maintenance, or replacement.

Manpower

90. Like finance, manpower is a key resource that can either make the successful implementation of programmes possible or limit their achievement. Manpower planning will have been considered during detailed programming. It is usually necessary, early in the starting-up phase, to make the managerial appointments and assignments required in order to prepare fully for implementation. Salary structures,

work incentives, and length of duty tours, where applicable, all hav to be worked out in full. Assumptions with regard to attrition, retire ment, illness, and/or career changes will have been specified durin detailed formulation; as information accumulates during the starting up and operation of a programme, changes in these assumption or forecasts may be required.

91. During this period, post descriptions have to be finalized Personnel have to be assigned to particular posts and locations Training programmes have to be fully worked out and implemented In doing so, account has to be taken of admission requirements length of training for each qualification, curricula, faculty/studen relations, training manuals and materials, and the housing and main tenance of students and teaching staff.

92. Information for personnel accounting frequently has to be systematized in order to monitor the production, loss, and utilization of important categories of staff. This information can also aid the process of staff assignment and rotation.

Facilities, construction, equipment

93. The physical design, construction, and equipment of health facilities take place at this stage. They require team work by a wide variety of experts in the health, architectural, engineering economic and managerial disciplines. Strict control of the process by an individual or small group is essential; otherwise there is always the danger of the facilities eating up the whole health budget In designing facilities, subsequent running costs always have to be borne in mind; for a typical hospital, for instance, capital expenditure may amount to no more than two to three years of running costs.

Procurement

94. Procurement includes making the necessary arrangements to utilize existing facilities and equipment; taking the necessary steps to purchase or rent and make usable those facilities and equipment that are needed but not currently available; contracting for the required commodities and services; ensuring their arrival when need- ed and their timely construction and installation; seeing that these

ctivities are carried out in such a way as to meet the needs of the rogramme at each successive phase, and monitoring the quality of he work and materials to ensure that they will operate as specified. Deficiencies in procurement processes not only limit programme performance but may also have a negative influence on future budgetary allocations.

Maintenance

95. Maintenance activities need to be implemented to ensure the constant performance of facilities and equipment. Personnel have to be appointed and trained to carry out maintenance, or contractual provisions made for this purpose. An initial stock of spare parts has to be obtained and an inventory management system set up to make sure that stocks of spares are ordered and obtained in time. An inventory of tools, fuels, lubricants, and cleaning and other supplies may also have to be established.

Appropriate technology

96. The concepts of appropriate technology certainly apply here. For effective performance and economical resource utilization it is essential that the equipment and facilities should be appropriate, having regard to the cost, availability, and skill of operational and maintenance personnel.

Logistics and supplies

97. The type, quantities, and location of the supplies required will have been determined during detailed programme formulation. During the starting-up phase initial stocks have to be funded, procured, and put in place. To protect stocks against weather, spoilage and stealing, storage in a warehouse and, for some items, refrigeration facilities will be required. An inventory management procedure has to be set up and the responsibility for operating it clearly defined. The procedures should cover storage, a distribution system to ensure that supplies are in the right place at the right time, an efficient records system, and an alerting mechanism for restocking.

Transport

98. The required personnel (including maintenance and repair staff), vehicles, fuel, lubricants, parts, and tools must all be provided during the starting-up phase of implementation in accordance with plans made for them during detailed programme formulation.

99. It goes without saying that, at the same time, budgetary approval has to be obtained for the expenditures necessitated by all the above activities.

Operation

100. Whatever has been planned and set in motion has to be managed on a day-to-day basis. Day-to-day management of programmes and institutions for delivering them usually has to follow procedures that are highly specific to the country concerned. The following brief comments can, therefore, only be of a very general nature.

Programme maintenance

101. In the programme operation phase the management function shifts to maintaining the performance of programme activities after they have been initiated. Operations management therefore involves day-by-day direction and control of personnel, services, and support activities to ensure that they serve the purposes for which they were established, and thus reflect the policies that gave rise to these purposes. What has been planned in the formulation phase and set up in the starting-up phase must now be carried out. Funds must reach workers and suppliers, supplies must reach those who are to use them, and personnel to carry out the various tasks have to be maintained and properly managed. Personnel management is usually the most essential, yet the most difficult, part of programme operation. Procurement of recurrent financial resources, replacement of manpower, restocking of supplies, and maintenance and repair of facilities, equipment, and vehicles should all now be made routine.

Management communications system

102. Operations management also involves communication between organizational levels, e.g., to ensure the proper functioning of the referral system, as well as among sectors, with various units of government, and with communities. A critical management tool for the accomplishment of these operational tasks is a communications system giving early warning of the resource needs within the health system. Accounting procedures have to be applied to ensure that funds are expended for the purposes for which they were appropriated, to identify financial problems, and to serve

s the basis for further cost analysis for reprogramming and budget ıstification.

Resource management

103. In the operational phase, resource management, in addition o ensuring the availability and proper distribution of resources, will eed to keep the government aware of actual or potential imbalances, nd take the necessary corrective action. For example, the training chedule for replacement of staff is dependent on assumptions about ersonnel attrition. These assumptions will need to be corrected on he basis of experience. Thus, it may prove necessary to re-examine raining schedules and other personnel policies in order to avoid ersonnel shortages or costly surpluses.

104. Throughout programme operation the central level of government in a health system is primarily concerned with supervision, coordination, and support rather than service delivery. An essential managerial activity at the centre is the coordination of resources to make sure that they are available at the right time and place. This means integration of funding, manpower, procurement, and logistics.

Monitoring

105. Throughout implementation, monitoring is required of the way resources are used and activities carried out. Monitoring is the day-to-day follow-up of activities during their implementation to ensure that they are proceeding as planned and are on schedule. It keeps track of ongoing activities, milestones achieved, personnel matters, supplies and equipment, and money spent in relation to budgets allocated. Reliable information on these matters must, therefore, be provided by those performing the activities. Monitoring makes it possible to identify deviations so that activities can be put back on the right track.

9. Evaluation

106. Evaluation is a part of the managerial process for nationa health development. It should be based on information gained fro monitoring the implementation of the policies, strategies, and plan of action, and on assessment of the efficiency of programme activitie as well as their effectiveness and impact in terms of improvement o the health status of the population.

107. If governments are to know whether they are makin progress towards attaining an acceptable level of health for all thei people, they will be wise to introduce evaluation at an early stage Monitoring of implementation and evaluation of efficiency, effective ness, and impact take place at two levels—the policy and the mana gerial—but the two have to be linked. Policy-makers need to know whether the health status of the population is improving and whethe revision of the policy, strategy, or plan of action is required. Manager and technicians need to know whether relevant programmes are being properly formulated, whether corresponding services and activitie for implementing them are being adequately designed, and whethe programmes are being efficiently implemented through suitably operated health and related social and economic services.

Purpose of evaluation

108. Evaluation is a systematic way of learning from experience and using the lessons learnt to improve current activities and promote better planning by careful selection of alternatives for future action This involves analytical assessments throughout the different phases of the managerial process. These analyses relate to the relevance of the programme, the way it is being formulated, its efficiency and effectiveness, and its acceptance by all parties involved. Evaluation can thus help to guide the allocation of human and financial resources in current and future programmes, but to do so it must be closely

nked with decision-making, whether at the operational or the olicy level.

Framework for evaluation

109. Evaluation has to be built into the entire managerial process or national health development and has to be applied on a continuing asis. It therefore has to be applied throughout the planning and nplementation of programmes and the operation of services and nstitutions for delivering them so that their effectiveness and their ocioeconomic impact can be assessed.

Responsibility for evaluation

110. The individuals and groups responsible for the development nd application of the managerial process for national health develop- nent are also responsible for evaluating the programmes, services, nd institutions to which the process has given rise, as well as the rocess as such. Those involved should ensure that other individuals nd groups involved at the same level or at other levels, whether more entrally or more peripherally located, are kept informed of the esults of evaluation and are required to take appropriate action. Final responsibility for the evaluation of the total health system rests with the central authorities, such as the cabinet or the minister of ealth.

Components of evaluation

111. In any evaluation, the following components should be taken into account with varying degrees of emphasis:

(i) relevance
(ii) adequacy
(iii) progress
(iv) efficiency
(v) effectiveness
(vi) impact.

The following is a brief outline of the main features of these components:

(i) *Relevance* relates to the rationale for adopting health policies in terms of their response to social and economic activity; and to having programmes, activities, services or institutions,

in terms of their response to essential human needs and socia and health policies and priorities.

(ii) *Adequacy* implies that *sufficient attention* has been paid t *certain previously determined courses of action*, such as thos that have to be considered during broad programming.

(iii) *Progress* is concerned with the comparison of actual wit scheduled programme delivery, the identification of reason for achievements or shortcomings, and indications for rem edies for any shortcomings. The purpose of progress review is to facilitate the monitoring and operational control of on going activities.

(iv) *Efficiency* is an expression of the relationships between th results obtained from a health programme or activity and th efforts expended on it in terms of human, financial and othe resources, health processes and technology, and time.

(v) *Effectiveness* is an expression of the desired effect of a pro gramme, service, institution, or support activity in reducing health problem or improving an unsatisfactory health situa tion. Thus, effectiveness measures the *degree of attainment* o the predetermined objectives and targets of the programme services, institutions, and support activities.

(vi) *Impact* is an expression of the overall effect of a programme services, or institution on *health development* and on relatec social and economic development.

Constraints in evaluation

112. Evaluation, difficult in any field, presents particular problems in health work, owing to the very nature of the activities, which often do not lend themselves easily to the measurement, against predetermined, quantified objectives, of what has been attained. It is, therefore, often unavoidable to apply *qualitative* judgement, supported whenever possible by reliable, quantified information. Account has to be taken of the intricate interrelationships between the health sector and other social and economic sectors. Changes in a health situation are often brought about by elements outside the health sector, making evaluation difficult. This accentuates the need to

efine reliable and sensitive *indicators* for identifying changes in ealth situations.

Indicators

113. Indicators are variables that help to measure changes, irectly or indirectly. The terms "output indicator", "process indiator", and "product indicator" are used. For example, if the objecive of a programme is to train a certain number of auxiliary health ersonnel annually, a direct indicator for evaluation could be the umber of such personnel actually trained each year. This is called n output indicator. As the terms imply, a process indicator measures he manner and extent of carrying out the process under consideraion, and a product indicator measures the outcome of this process. For example, in order to assess the results of a programme aimed at mproving the level of health of a child population, it may be necesary to gauge any improvement by using several indicators that ndirectly measure a change in this level. Such indicators could be the nutritional status as illustrated by weight in relation to height, age-specific mortality rates, disease-specific morbidity rates, learning capacity, etc. These are more fully discussed in the companion publication entitled *Development of Indicators for Monitoring Progress Towards Health for All by the Year 2000.*[1]

Pertinent questions

114. There will be some health activities for the evaluation of which no suitable indicators are available. In such cases, pertinent questions should be asked concerning the activity to be evaluated. The answers to these questions will be a guide to evaluation and will, in turn, help to define and refine indicators. For example, if a country has adopted the process of country health programming, questions like the following could be asked:

— Has the process led to the determination of priority programmes for countrywide implementation?

— Have the objectives of these programmes been clearly stated in either qualitative or measurable terms?

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[1] *Development of indicators for monitoring progress towards health for all by the year 2000*, Geneva, World Health Organization, 1981 ("Health for All" Series, No. 4).

— Have appropriate plans of action with adequate budgets bee established for attaining these objectives?

— Have the programmes been properly integrated into the gener health system, starting with primary health care and continuin throughout the other levels of the health system as required

Evaluation by the community

115. Quite apart from evaluation by those in the health servic responsible for health development, evaluation by the communit itself can be a powerful tool. For example, in one country the evalua tion of a health programme was carried out by a district health com mittee during a community seminar. The seminar reviewed th results of the programme over one year and produced an improve plan of action which was approved by each community after review Similar evaluations by the community might be usefully undertake wherever primary health programmes are being carried out, an those responsible in the country for the application of the evaluatio component of the managerial process for health development shoul bear this in mind. The following paragraphs outline one way i which such evaluation by communities could be carried out.

Review of relevance and adequacy

116. The following questions may be asked:

— Is the programme addressed to the high-priority problems o the community?

— Does it use methods that can be applied and afforded now by the community concerned?

— Is there another programme or service that might provide an alternative service to deal with the health problems in the com- munity?

— Have the activities and their time schedules taken into account the particular conditions of the community?

— Does the community agree with the set of indicators that are said to be applicable in the community?

— Is there an adequate supply of required medicines at the com- munity level?

Review of progress and efficiency

117. The community should examine whether activities are being carried out in accordance with the implementation plan. The following examples are given by way of illustration:

— whether a community worker has been selected, has been trained, and is performing to the community's satisfaction
— whether the target number of wells has been constructed
— whether the number of infant deaths has fallen
— whether the local clinic has the necessary essential drugs continuously in stock.

Questions should be asked to find out reasons for not achieving targets, and what corrective action the community proposes to take.

Review of effectiveness and impact

118. This could consist of an analysis of the attainment of health objectives in the community. The community may need the assistance of health officials in organizing the collection of data and in analysing them to assess improvement in health, using health status indicators and indicators of the provision of health care. For example, the infant mortality rate is a commonly used overall health status indicator which can be calculated from the data available on the number of deaths that have occurred among infants under the age of one year, as compared with the total number of infants born alive during the year.

10. Reprogramming

119. Reprogramming may have to be initiated in response to th results of evaluation. It may be found, for example, that programme are not acceptable to the people they are intended to serve, or ar not proceeding according to plan because of unforeseen circumstances or are not attaining their objectives. Such factors may make i necessary to modify programme activities or the calendar of action They may even make it necessary to introduce changes into th national plan of action. This could have serious consequences if i means holding up the implementation of the plan as a whole, bu it could have useful consequences if it leads to progressive improve ments in the plan.

120. Any large-scale reprogramming will usually require th approval of those who originally authorized the programme especially as reprogramming usually entails additional costs and lead to delays. If large-scale modifications are proposed to the nationa master plan of action, approval may be required from the highes political and executive decision-makers. This could create doubt in their minds about the usefulness of the plan and could make them very cautious about approving the new proposals. If it is added tha minor adjustments and continual improvements are more easily accepted by the people directly involved than major changes o direction, it becomes clear that reprogramming should be a con tinuing process throughout the managerial cycle rather than an abrupt action at some late stage. This again accentuates the need to evaluate throughout the whole process and react immediately rather than wait until it is too late to introduce change without causing serious disturbances to the programme and delays in its execution as well as incurring additional costs.

11. Information Support

Sources of information

121. The decision-making process, involving all relevant components of the managerial process for national health development outlined above, requires relevant information. This information may come from existing reports and surveys but it may be necessary to carry out special surveys or to introduce or strengthen the collection and analysis of data as an intrinsic function of the health system. In the absence of relevant and objective data, reliance may be placed upon the judgement of knowledgeable and responsible people. It is better to obtain rough answers to the right questions than to use apparently precise data of doubtful relevance. For example, data on morbidity and mortality from urban hospitals may be totally misleading in respect of the rural population, who are frequently the largest population group and a major target of health development projects.

Selectivity of information

122. It has to be remembered that information gathering and analysis are expensive, especially if carried out as a separate activity. Before embarking on them, it is, therefore, important to identify clearly who the users are likely to be and what kind of information they are likely to need. For example, information might be required by health managers, health care personnel, research workers, educators and trainers of health personnel, and people involved in health matters in other sectors, not to speak of top-level policy-makers, executive decision-makers, and the general public.

123. Selectivity is, therefore, the keynote in deciding what information should be collected to support the managerial process for national health development. Each of the above-mentioned users may require different types of information, or the same kind of information presented in different ways. Most will require demographic data, but the degree of detail required will vary greatly.

Not all the categories of information carry the same weight or have the same importance in the various stages of the managerial process for national health development. Depending on the circumstances and subject to the availability of data, relevance must play a role in the selection of information. The following is intended to give an idea of some of the types of information commonly required.

Policy information

124. The relevant information on national socioeconomic development policies and national health policies should be made available during the analysis and/or reformulation of current policies, particularly with reference to formulating strategies for health for all and primary health care.

Types of health care

125. Information on the availability, accessibility, and utilization of various types of health care could cover: current patterns of utilization of various types of services; immunization activities, vector control and other methods of communicable disease control; housing; patterns of food and drug distribution; and income or employment, the educational system, and literacy levels.

Health problems

126. The health problems of population groups by age, sex (where significant, as in the child-bearing years), and location are necessary information inputs into programming. Problems may be measured in terms of mortality, disability, and prevalence of disease or condition. Where relevant for the design or selection of interventions, determination of mortality or disability due to specific diseases or disease groups may help to focus planning and programming on the most relevant aspects of the health situation.

127. For example, in many of the developing countries, a large proportion (often as high as 50%) of deaths occurs in children under 5 years of age. Where this is so, rough identification of the main fatal conditions may help programme design. A table such as the following may be useful:

Annual deaths of children aged 0-4 years

Cause	Percentage of deaths
Diarrhoeas and malnutrition	30
Upper respiratory disease	25
Measles	20
Tetanus	10
Malaria	5
Others	10
Total	100

Data on the nutritional status of young children and on fertility behaviour patterns may also be helpful in identifying health problems.

Resources and facilities

128. A summary of the various existing categories of health establishment should be assembled by major groupings, by type of activities performed, and by main administrative subdivisions of the country. Examples are data on health facilities/hospitals, health centres, dispensaries, bed/population ratio, and health training institutions (medical schools, nursing or midwifery schools, and other faculties and training institutions for preventive, curative, or health research personnel).

Health manpower

129. The estimated number of physicians, nurses, midwives, and other health personnel, including non-professional primary health care workers, should be given with an indication of their urban/rural distribution, as well as their distribution among the facilities in which they serve, their distribution by specialty, and rough estimates of annual numbers of graduates from existing educational and training institutions. Information on traditional practitioners and birth attendants should be included where relevant.

Costs

130. It is useful to relate current health activities to their costs, in order to develop cost factors for each type of activity which could

be used to make rough approximations of the budgetary implications of programming decisions or proposals.

Administration

131. Another important type of information is the administrative structure and the capacity of the country, including the central government as well as peripheral government levels and community organizations. Information on this subject is likely to be qualitative rather than quantitative and should not be restricted to the capacities of formally designated health workers, since, for example, educators and women's organizations may be significant resources.

Other information

132. There is no doubt that additional specialized information will be required during various stages in the development of the managerial process for national health development. The need usually comes to light in the course of applying the managerial process. Those responsible for planning and implementing various phases of the process should familiarize themselves with existing statistical publications and other sources of information or identify responsible persons in the country capable of providing information.

133. The following principles are pertinent to information support for the managerial process for national health development. The information system should support managerial and technical functions, not replace them. Health information collection, analysis, and dissemination should be integral parts of the activities of the health system, and the structure of a national health information system should follow the structure of the health system itself. Only information that is required by specific users for specific purposes should be sought. The information need not be more precise than the process it supports; approximate information in good time is better than precise information too late. Measures have to be taken to ensure that the producers of information are provided with feedback information.

12. Concluding Remarks

134. In paragraph 7 it is stated that there is a need to demystify and simplify the managerial process for national health development. In spite of attempts to do so in this document, the process remains complex. It is hoped that the present document will at least have made it easier to understand by presenting it in an orderly fashion, listing and outlining its major components, the relationships between them, and their products, bearing in mind that the principles presented in this paper are intended for application by each country in a flexible manner reflecting the country's own health, political, social, and economic circumstances.

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